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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

KIM, CHONG HWA

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 05/19/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/514,338

Applicant(s)

TANABE ET AL.

Examiner

Chong H. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

The Examiner acknowledges the applicant's amendment filed Mar 9, 2004, in response to the Office action made on Sep 9, 2003.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 15-19, 21, 24, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakada et al., U.S. Patent 5,792,302 in view of Nishibori, U.S. Patent 5,869,138.

Nakada et al. shows, in Figs. 1-5, a steering wheel comprising;

an annular rim 1a including;

a core 2;

arcuate-shaped and elongated rim elements 3, 4 mounted on the core 2;

wherein an annular streak pattern (as shown in Fig. 3B) extends along a longitudinal axis of each of the elongated rim elements;

a boss section (in the middle of the spoke section 1b) and a spoke section 1b, the annular rim section 1a being connected to the boss section by the spoke section 1b;

wherein the arcuate rim elements include a front-side rim element having a central longitudinal groove 13, and include a rear-side rim element having a central longitudinal groove

13, the core 2 being fit into the central longitudinal groove 13 of each of the front-side rime element and the rear-side rim element so as to mount the rim elements 3, 4 on the core 2 (as shown in Figs. 3-6);

wherein the arcuate rim elements include an outer-side rim element having a central longitudinal groove 13, and include an inner-side rim element having a central longitudinal groove 13, the core 2 being fit into the central longitudinal groove 13 of each of the outer-side rime element and the inner-side rim element so as to mount the rim elements 3, 4 on the core 2 (as shown in Figs. 3-6), and the rim elements having a uniform thickness (the rim element 3) substantially equal to a diameter of the core;

a coating covering the arcuate rim elements 2, 4 (as described in column 9, lines 31-5);
and

wherein the annular rim section further includes a grip portion 25 formed of flexible urethane and mounted on the core 2 (as described in column 8, lines 56-61 and in column 7, lines 9-11);

but fails to show the rim elements being formed of thermosoftening synthetic material blended with woodmeal so as to have an outer surface of the thermosoftening synthetic resin material and the woodmeal, with an outer surface streak pattern and a color pigment blended therein to show different colors wherein the rim section has surface unevenness.

Nishibori teaches, in column 2, lines 4-20, a material that is made of a thermosoftening synthetic resin (thermoplastic resin) blended with wood meal so as to form a streak pattern (wooden pattern) on an outer surface and wherein a color pigment (colorant) is blended therein so as to have an outer surface of the thermosoftening synthetic resin material and the wood meal,

with an outer surface streak pattern on the outer surface includes streaks of different color, and the surface having a surface unevenness.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the steering wheel rim section made of wood of Nakada et al. with the material being made of thermosoftening synthetic resin including wood meal and color pigment of Nishibori in order to provide a molded product that contains the wooden grain that of the natural wood with reduced cost compared to the real wood.

3. Claims 20, 22, 23, 25, 26, 28, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakada et al. in view of Nishibori as applied to claims 15, 19, 21, and 24 above, and further in view of Young, Jr. et al., U.S. Patent 3,802,291, in view of Kiyoshi, JP Pub No. 07117326, and in view of Uchida, U.S. Patent 4,581,954.

Nakada et al. in view of Nishibori shows, as discussed above in the rejection of claims 15, 19, 21, and 24, the steering wheel comprising the arcuate-shaped and elongated rim elements formed of thermosoftening synthetic material blended with wood meal so as to form an annular streak pattern on an outer surface thereof, but fails to show a cover member mounted on the seam; the protective coating covering only the front-side portion of the arcuate rim element; a transfer print on a front-side of the annular rim section; and the arcuate rim elements having the first rim having a notch for receiving the core and the second rim having the substantially equal thickness to the diameter of the core to be fitted in the notch.

As to the matter of the cover member mounted on the seam, Young, Jr. et al. shows, in Fig. 3, a steering wheel comprising a seam wherein a cover 106 is mounted on the seam.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to apply the cover as taught by Young, Jr. et al. on the seam of Nakada et al. in view of Nishibori in order to provide a more pleasing design so that the value of the product is maintained.

As to the matter of the protective coating covering only the front-side portion of the arcuate rim element, it would have been obvious to modify protective coating of Nakada et al. in view of Nishibori by having the protective coating covering only the front-side portion of the arcuate rim element, since applicant has not disclosed that having the protective coating covering only the front-side portion of the arcuate rim element solves any stated problem or is for any particular purpose and it appears that the protective coating would perform equally well by covering other parts of the rim.

As to the matter of the transfer print on a front-side of the annular rim section, Kiyoshi, discloses, in Figs. (a)-(c) and in the Abstract, a steering wheel comprising transfer print on a front-side of the annular rim section wherein the transfer print includes a transfer ink layer having a thickness gradually reduced toward a rear-side of the annular rim section so that a ground pattern formed by the transfer ink layer gradually appears on the annular rim section when viewed from the rear-side toward the front-side.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the rim of Nakada et al. in view of Nishibori with the transfer print of Kiyoshi in order to "raise a decorative design of a product, and a seam of a transfer pattern is made difficult to be visually confirmed" as described in the Purpose of the Abstract by Kiyoshi.

As to the matter of the arcuate rim elements having a first rim having a notch for receiving the core and a second rim having a substantially equal thickness to the diameter of the core to be fitted in the notch, Uchida shows, in Fig. 5, a steering wheel comprising an arcuate rim elements 10' include a first rim element 11 having a longitudinal notch formed therein for receiving the core 7, and a second rim element 114 having a thickness (near the core 7) substantially equal to a diameter of the core 7 and being fitted into the notch of the first rim element 11 after the core.

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify the two halves of Nakada et al. in view of Nishibori with the cover assembly of Uchida in order to provide a more securely engaged mechanism so that the steering wheel would last longer.

Response to Arguments

4. In response to applicant's argument that Nishibori reference does not disclose or even suggest arcuate-shaped and elongated rim elements and that because Nakada already has the outer wooden surface layer with the corresponding wood grain appearance, there would be no reason to modify the Nakada reference using the Nishibori's reference, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Clearly Nakada teaches a steering wheel with an annular rim section

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that is in arcuate-shaped and elongated rim elements mounted on the core having an outer surface with annular streak pattern that follows the real wood grain. However, Nakada does not show the rim element having the outer surface being formed of thermosoftening synthetic resin material blended with woodmeal. Nishibori teaches, as discussed above, that one may utilize, as described in column 2, lines 4-20, a material that is made of a thermosoftening synthetic resin (thermoplastic resin) blended with wood meal so as to form an annular streak pattern (wooden pattern) on an outer surface and wherein a color pigment (colorant) is blended therein such that the annular streak pattern on the outer surface includes annular streaks of different color, and the surface having a surface unevenness. Nishibori also teaches that one of ordinary skill in the art may apply this type of material in automobile vehicles (see column 1, line 50). Therefore, one of ordinary skill in the art can modify the real wood material utilized in Nakada with the resin material blended with woodmeal as taught by Nishibori in order to save money and environment as described in column 1, lines 26-31 by Nishibori.

5. In response to the applicant's argument that the Young, Kiyoshi, and Uchida references do not teach an annular rim section including arcuate-shaped and elongated rim elements mounted on a core, again, the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). Nakada reference already teaches the steering wheel having the annular rim section including arcuate-shaped and elongated rim elements mounted on the core. Young, Kiyoshi, and Uchida references are

utilized to provide reasons for one of ordinary skill in the art to modify certain aspects of the present invention wherein Nakada/Nishibori do/es not show (see above in paragraph 3 for reasons).

6. In response to the applicant's argument that the phrase "uniform thickness" describes the entire second rim element and that the phrase does define the metes and bounds, it is the Examiner's position that the phrase "uniform thickness" in claim 28 does not exclusively mean the entire second rim element and that the previous comments about the metes and bounds of the phrase did not mean to convey that there is an indefiniteness. Claim 28 recites that "a second rim element (has) a uniform thickness". Such statement does not suggest that the uniform thickness is provided along the entire length of the second rim element. At most, the phrase suggests that the thickness is uniform in limited length. Whether it is in circumferential, radial or axial direction, the recitation does not further define. Furthermore, the previous Office action stating that "Claim 28 does not specifically define the metes and bounds of the words 'uniform thickness'" perhaps should have been phrased as "Claim 28 does not further define the metes and bounds of the phrase 'uniform thickness'". Nevertheless, the recitation "a second rim element (has) a uniform thickness" in claim 28 is broad enough to read on Uchida because Uchida includes a uniform thickness at a location where the element 114 contacts the core 7 along at least a certain length of the core.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chong H. Kim whose telephone number is (703) 305-0922. The examiner can normally be reached on Tuesday - Friday; 8:00 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Bucci can be reached on (703) 308-3668. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9327.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

chk
May 15, 2004


CHONG H. KIM
PRIMARY EXAMINER